## REMARKS

Claims 1-31 are pending in the application. Claims 1-3, 6-9, 12, 15-19, 22-25, and 28-30 are rejected. Claims 4, 5, 10, 11, 13, 14, 20, 21, 26, 27, and 31 are objected to.

In the Office Action, the Examiner objected to the abstract and the disclosure. The abstract has been shortened to fewer than 150 words. The specification has been updated to include patent numbers in paragraphs [0035], [0044] and [0065]. The claims have been amended for clarity or to fix grammatical errors.

Claims 1-3, 6-9, 12, 15-19, 22-25, and 28-30 were rejected pursuant to 35 U.S.C. § 103(a) as being unpatentable over Angelsen (U.S. Patent No. 6,461,303). Claims 4, 5, 10, 11, 13, 14, 20, 21, 26, 27, and 31 were objected to as being dependent on a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 1, 8, 19, and 25 have been amended.

Applicants respectfully request reconsideration of the rejections of claims 1-3, 6-9, 12, 15-19, 22-25, and 28-30, including independent claims 1, 12, 19, and 24.

Independent claim 1 claims setting a transmit level, and automatically selecting a setting for at least one contrast agent imaging parameter as a function of the transmit level and in response to the setting of the transmit level. Angelsen does not disclose these limitations. Angelsen provides for imaging at the third or fourth harmonic frequencies to detect contrast agents in soft tissue (col. 1, lines 11-15; col. 2, lines 24-28; col. 9, lines 39-41). Because the third and fourth harmonics are susceptible to transmit amplitude variation, the transmit amplitude is desired to be the same along the entire scan line (col. 2, lines 40-55; col. 3, lines 1-4 and 14-25; col. 4, lines 62-66; and col. 13, lines 27-36). The transmit frequency, transmit aperture, transmit focus and transmit amplitude are set to provide the equalized amplitude over an entire depth of interest (col. 3, lines 1-4 and 14-25; col. 5, lines 19-29; col. 9, lines 57-61; col. 13, lines 27-36 and col. 14, lines 1-6). One way disclosed to determine the settings for a multi-focal scan line is to start with preset transmit beam aperture and focusing and iteratively adjust the focusing and aperture so the desired receive amplitudes are obtained (col. 13, lines 36-65; see also Figures 8a and 8b). Angelsen discloses a particular type of contrast agent detection or imaging technique. The transmit settings to be used are determined based on presets with iterative variation to determine setting for use (see col. 13, line 66-col. 14, line 20). Angelsen does not

suggest setting a transmit level, and then automatically, in response to the setting of the transmit level, setting at least one contrast agent imaging parameter as a function of the transmit level.

Independent claim 12 claims automatically adjusting from one contrast agent detection technique to a different contrast agent detection technique in response to a change in a transmit level. As discussed above, Angelsen uses a same detection technique, detection at the third or fourth harmonic. Different transmit levels, focal locations and/or transmit apertures may be used to provide a more uniform transmit amplitude along the depth of a scan line, but a different contrast agent detection technique is not provided. Angelsen does not automatically adjust between different contrast agent techniques and does not adjust in response to a change in the transmit level.

Independent claim 19 claims configuring a system for contrast agent imaging, and altering a transmit level and a transmit sequence for the contrast agent imaging in response to a single user input control, at least two different transmit levels being associated with at least one of the transmit sequences. Angelsen determines settings to use based on presets and iteration. Once determined, the settings are used, such as shown in Figure 8. Angelsen does not suggest configuring the system for contrast agent imaging and altering the transmit sequence and transmit level. Angelsen also does not suggest altering two different settings in response to a single user input control.

Independent claim 24 claims a memory operable to store a table of a plurality of transmit sequences and a plurality of transmit levels, at least two transmit levels associated with at least one of the transmit sequences, and a processor operable to select different ones of the plurality of transmit sequences and of the plurality of transmit levels in response to a single input from the user input control. Applicants respectfully submit that independent claim 24 is allowable for the same reasons discussed above for claim 19.

Dependent claims 2-3, 6-9, 15-18, 22-23, 25, and 28-30 depend on or include similar limitations as independent claims 1, 12, 19, and 24, and are thus allowable for at least the same reasons as discussed above. The dependent claims are also patentable over Angelsen for additional reasons. For example, claims 2, 3, 16, and 17 claim setting the transmit level by user input with a single control or automatically with a processor in response to a measurement. Angelsen does not disclose how to set the transmit level, only that it is set. Claim 7 claims selecting one of multiple transmit pulses with interpulse amplitude and phase modulation, same amplitude and phase,

interpulse amplitude modulation and interpulse phase modulation. Angelsen does not disclose selection between these options. Claim 8 claims providing two or more transmit level settings available as a set of user-accessible options for setting the transmit power level where each setting incorporates settings of other contrast agent imaging parameters. Angelsen merely developed settings for use in multiple depth imaging, not combinations including different transmit levels available as a set of user accessible options. Claim 22 claims altering transmit level and sequence in response to user input control and further altering the transmit level without altering the transmit sequence in response to further adjustment of the user input control. Angelsen does not suggest this limitation. Claim 28 claims a processor operable to obtain a measure of response and automatically select transmit sequence and transmit level. Angelsen does not disclose automatic setting as noted by the Examiner. Applicants submit that it would not have been obvious because Angelsen is merely trying to determine a setting for programming operation of the imaging system. Once programmed, Angelsen does not suggest automatic setting because Angelsen is not concerned with variability. Finally, claim 30 claims different sequences, one with interpulse amplitude modulation and one with the same amplitude and phase. Angelsen does not disclose these combinations.

## CONCLUSION

Applicants respectfully submit that all of the pending claims are in condition for allowance and seeks early allowance thereof. If for any reason, the Examiner is unable to allow the application but believes that an interview would be helpful to resolve any issues, he is respectfully requested to call the undersigned at (650) 943-7350 or Craig Summerfield at (312) 321-4726.

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